

SELECTIVE SEPARATION OF FLUID COMPOUNDS UTILIZING A
MEMBRANE SEPARATION PROCESS

ABSTRACT OF THE INVENTION

5 Apparatus and processes are disclosed for economical
separation of fluid mixtures utilizing perm-selective membranes.
Broadly, apparatus of the invention comprises a plurality of
membrane modules comprising a solid perm-selective membrane
and means for controlling enthalpy of selected fluids within the
10 apparatus. Advantageously, the membrane modules are disposed
in a first product group, a second product group, and at least one
intermediate group. Apparatus of the invention is particularly
useful for simultaneous recovery of a very pure permeate product,
and/or a desired non-permeate stream, from fluid mixtures of two
15 or more compounds which when subjected to appropriately altered
conditions of temperature and/or pressure exhibit a bubble point.

* * *